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TOWNSEND and TOWNSEND and CREW LLP

By: /Aaron Hokamura/

PATENT
Attorney Docket No.: 15280W-
002100US
Client Reference No.: E-286-1998/1-US-
06

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

BRENNEMAN et al.

Application No.: 10/049,587

Filed: February 12, 2002

For: ORALLY ACTIVE PEPTIDES
THAT PREVENT CELL DAMAGE AND
DEATH

Confirmation No.: 9701

Examiner: Standley, Steven H.

Art Unit: 1649

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of references AA - AG are not provided, in compliance with the provisions of 37 CFR §1.98(a)(2). Copies of references AH - CC are provided herewith.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

/Beth L. Kelly/

Beth L. Kelly
Reg. No. 51,868

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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/049,587
		Filing Date	February 12, 2002
		First Named Inventor	Brenneman, Douglas
		Art Unit	1649
		Examiner Name	Standley, Steven H.
(Use as many sheets as necessary)		Attorney Docket Number	15280W-002100US
Sheet	1	of	6

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		Number Kind Code ² (If known)				
	AA	4,587,046	05-08-1988	Goodman et al		
	AB	5,787,240	06-18-1998	Brenneman et al.		
	AC	8,174,862 B1	01-18-2001	Brenneman		
	AD	6,813,740 B1	09-02-2003	Gozes et al		
	AE	6,933,277 B2	08-23-2006	Brenneman et al.		
	AF	2004/0048801 A1	03-11-2004	Spong et al		
	AG	2004/0053313 A1	03-18-2004	Gozes et al.		

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ³	Number ⁴	Kind Code ⁵ (If known)				
	AH	WO	92/18140	A1	10-29-1992	The United States of America, represented by The Secretary, Department of Health and Human Services		<input type="checkbox"/>
	AI	WO	96/11948	A1	04-25-1996	The Government of the United States of America, as represented by the Secretary of the Department of Health and Human Services		<input type="checkbox"/>
	AJ	WO	98/35042	A1	08-13-1998	The Government of the United States of America, represented by the Secretary of the Department of Health and Human Services		<input type="checkbox"/>
	AK	WO	00/27875	A2	05-18-2000	The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services, and Ramot University, Authority for Applied Research and Industrial Development		<input type="checkbox"/>
	AL	WO	00/53217	A2	09-14-2000	The Government of the United States of America, as represented by the Secretary of the Department of Health and Human Services, and Ramot of Tel Aviv University, Ramot University, Authority for Applied Research & Industrial Development Ltd.; and The Government of the United States of America, represented by the Department of Health and Human Services		<input type="checkbox"/>
	AM	WO	01/12654	A2	02-22-2001			<input type="checkbox"/>

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached

60779468 v1

Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Application Number	10/049,587
		Filing Date	February 12, 2002
		First Named Inventor	Brenneman, Douglas
		Art Unit	1649
		Examiner Name	Standley, Steven H.
(Use as many sheets as necessary)		Attorney Docket Number	15280W-002100US
Sheet	2	of	6

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	† ⁶
		Country Code ²	Number ³	Kind Code ⁴ (if known)				
	AN	EP	1 206 489	B1	05-08-2004	Remot University, Authority for Applied Research & Industrial Development Ltd ; and The Government of the United States of America, represented by the Department of Health and Human Services		<input type="checkbox"/>

Examiner Signature	Date Considered
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60779488 v1

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet	3	of	7	Application Number	10049,587
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Complete if Known

Application Number	10049,587
Filing Date	February 12, 2002
First Named Inventor	Brenneman, Douglas
Art Unit	1649
Examiner Name	Standley, Steven H.
Attorney Docket Number	15280W-002100US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AQ	Bassan, M. et al. "VIP-Induced Mechanism of Neuroprotection: The Complete Sequence of a Femtomolar-Acting Activity-Dependent Neuroprotective Protein." <i>Regulatory Peptides</i> , Vol. 71, No. 2, (August 15, 1997).	<input type="checkbox"/>
	AP	Bassan, M. et al. "Complete Sequence of a Novel Protein Containing a Femtomolar-Activity-Dependent Neuroprotective Peptide." <i>Journal of Neurochemistry</i> , Vol. 72, pp. 1283-1293 (1999)	<input type="checkbox"/>
	AQ	Ben-Adani, L. et al. "Activity-Dependent Neurotrophic Protein is Neuroprotective in a Mouse Model of Closed Head Injury." <i>Society for Neuroscience, 28th Annual Meeting</i> , Los Angeles, CA, November 7-12, 1998. Abstracts, Vol. 23, Part 1, p. 1043 (1998).	<input type="checkbox"/>
	AR	Brenneman, D.C. and Gozes, I. "A Femtomolar-Acting Neuroprotective Peptide." <i>Journal of Clinical Investigation</i> , Vol. 97, pp. 2299-2307 (1996)	<input type="checkbox"/>
	AS	Brenneman et al. "Neuronal Cell Killing by the Envelope Protein of HIV and its Prevention by Vasoactive Intestinal Peptide." <i>Nature</i> 335:636 (1988)	<input type="checkbox"/>
	AT	Brenneman et al. "N-Methyl-D-Aspartate Receptors Influence Neuronal Survival in Developing Spinal Cord Cultures." <i>Dev Brain Res</i> 51:63 (1990).	<input type="checkbox"/>
	AU	Brenneman, D.E. et al. "Identification of a Nine Amino Acid Core Peptide from Activity Dependent Neurotrophic Factor 1." <i>Society for Neuroscience, 27th Annual Meeting</i> , New Orleans, LA, October 29-30, 1997. Abstracts, Vol. 23, Part 2, p. 2250 (1997).	<input type="checkbox"/>
	AV	Brenneman, D.E. et al. "Activity-Dependent Neurotrophic Factor: Structure-Activity Relationships of Femtomolar-Acting Peptides." <i>Journal of Pharmacology and Experimental Therapeutics</i> , Vol. 285, pp. 619-627 (1998)	<input type="checkbox"/>
	AW	Davidson, A. et al. "Protection Against Developmental Retardation and Learning Impairments in Apolipoprotein E-Deficient Mice by Activity-Dependent Femtomolar-Acting Peptides." <i>Society for Neuroscience, 27th Annual Meeting</i> , New Orleans, LA, October 29-30, 1997. Abstracts, Vol. 23, Part 2, p. 2250 (1997).	<input type="checkbox"/>
	AX	Dibbern, D.A., Jr. et al. "Inhibition of Murine Embryonic Growth by Human Immunodeficiency Virus Envelope Protein and its Prevention by Vasoactive Intestinal Peptide and Activity-Dependent Neurotrophic Factor." <i>Journal of Clinical Investigation</i> , Vol. 96, pp. 2837-2841 (1997)	<input type="checkbox"/>
	AY	GenBank Accession No. AB018327 from the DNA Data Bank of Japan (DDBJ) (released November 17, 1998)	<input type="checkbox"/>
	AZ	Glad, E. "Protection Against Developmental and Learning Impairments in Apolipoprotein E-Deficient Mice by Activity-Dependent Femtomolar-Acting Peptides." <i>Neuroscience Letters</i> , Supplement 48 S1-S60, P. S19 (1997).	<input type="checkbox"/>

Examiner Signature	Date Considered
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Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet **4** of **7****Complete if Known**

Application Number 10049,587
 Filing Date February 12, 2002
 First Named Inventor Brennenman, Douglas
 Art Unit 1649
 Examiner Name Standley, Steven H.
 Attorney Docket Number 15280W-002100US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
BA		Glaizer, G.W. et al. "A 6 Amino Acid Peptide Fragment of Activity-Dependent Neurotrophic Factor (ADNF) Protects Neurons from Oxidative Stress-Induced Death." Society for Neuroscience, 27 th Annual Meeting, New Orleans, LA, October 25-30, 1997. Abstracts, Vol. 23, Part 2, p. 2249 (1997).	<input type="checkbox"/>
BB		Glaizer, G.W. et al. "Activity Dependent Neurotrophic Factor: A Potent Regulator of Embryonic Growth." Anat Embryol 200:55-71 (1999)	<input type="checkbox"/>
BC		Gozes, I. and Brennenman, D.E. "Activity-Dependent Neurotrophic Factor (ADNF)." Journal of Molecular Neuroscience, Vol. 7, pp. 235-244 (1996).	<input type="checkbox"/>
BD		Gozes, I. et al. "Stearyl-Histidine-Vasoactive intestinal Peptide (VIP): A novel VIP Analog for Noninvasive Impotence Treatment." Endocrinology, Vol. 134, pp. 2125 (1994).	<input type="checkbox"/>
BE		Gozes, I. et al. "Superactive Lipophilic Peptides Discriminate Multiple Vasoactive intestinal Peptide Receptors." Journal of Pharmacology and Experimental Therapeutics, Vol. 273, pp. 161-167 (1995)	<input type="checkbox"/>
BF		Gozes, I. et al. "Neuroprotective Strategy for Alzheimer Disease: Intranasal Administration of a Fatty Neuropeptide." Proc Natl Acad Sci USA, Vol. 93, pp. 427-432 (1996).	<input type="checkbox"/>
BG		Gozes, I. et al. "Antisense to Activity-Dependent Neurotrophic Factor Produces Neuronal Cell Death in CNS Cultures: Immunological and Biological Specificity." Developmental Brain Research, Vol. 96, pp. 167-175 (1997).	<input type="checkbox"/>
BH		Gozes, I. et al. "A Femtomolar-Acting Activity-Dependent Neuroprotective Protein (ADNP). Neuroscience Letters, Supplement 48 S1-S80, p. S21 (1997)	<input type="checkbox"/>
BI		Gozes, I. et al. "Protection Against Developmental Retardation in Apolipoprotein E-Deficient Mice by a Fatty neuropeptide: Implications for Early Treatment of Alzheimer's Disease." Journal of Neurobiology, Vol. 33, pp. 329-342 (1997).	<input type="checkbox"/>
BJ		Gozes, I. et al. "The cDNA Structure of a Novel Femtomolar-Acting Neuroprotective Protein: Activity-Dependent-Neurotrophic Factor III (ADNFIII)." Society for Neuroscience, 27 th Annual Meeting, New Orleans, LA, October 25-30, 1997. Abstracts, Vol. 23, Part 2, p. 2250 (1997)	<input type="checkbox"/>
BK		Gozes, et al. "A Novel Signaling Molecule for Neuropeptide Action: Activity-dependent Neuroprotective Protein". Annals of the New York Academy of Sciences, 897 125-135 (1999)	<input type="checkbox"/>
BL		Gozes, I. et al. "Activity-dependent neurotrophic factor: Intranasal administration of femtomolar-acting peptides improve performance in a water maze." Journal of Pharmacology and Experimental Therapeutics, Vol. 293, pp. 1091-1098 (2000).	<input type="checkbox"/>

Examiner
SignatureDate
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet **5** of **7****Complete if Known**

Application Number	10049,587
Filing Date	February 12, 2002
First Named Inventor	Brenneman, Douglas
Art Unit	1649
Examiner Name	Standley, Steven H.
Attorney Docket Number	15280W-002100US

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BM	Gressens, P. et al. "Growth Factor Function of Vasoactive Intestinal Peptide in Whole Cultured Mouse Embryos." <i>Nature</i> 362:155-58 (1993)	<input type="checkbox"/>
	BN	Hannigan, J.H. and Berman, R.F. "Amelioration of Fetal Alcohol-Related Neurodevelopmental Disorders in Rats: Exploring Pharmacological and Environmental Treatments." <i>Neurotoxicol. & Teratol.</i> 22(1):103-111 (2000).	<input type="checkbox"/>
	BO	Hill, J.M. et al. "Learning Impairment in Adult Mice Produced by Early Embryonic Administration of Amniotic to Activity-Dependent Neurotrophic Factor (ADNF)." <i>Society for Neuroscience, 27th Annual Meeting, New Orleans, LA, October 25-30, 1997. Abstracts, Vol. 23, Part 2, p. 2250 (1997).</i>	<input type="checkbox"/>
	BP	Lilling, G. et al. "Inhibition of Human Neuroblastoma Growth by a Specific VIP Antagonist." <i>Journal of Molecular Neuroscience, Vol. 5, pp. 231-239 (1995).</i>	<input type="checkbox"/>
	BQ	Mahato et al. "Development of Targeted Delivery Systems for Nucleic Acid Drugs." <i>J. of Drug Targeting</i> 4(6):337-357 (1997) [Abstract]	<input type="checkbox"/>
	BR	McKune, S.K. et al. "Localization of mRNA for Activity-Dependent Neurotrophic Factor III (ADNF III) in mouse Embryo and Adult CNS." <i>Society for Neuroscience, 27th Annual Meeting, New Orleans, LA, October 25-30, 1997. Abstracts, Vol. 23, Part 2, p. 2249 (1997).</i>	<input type="checkbox"/>
	BS	Nagase, et al., "Prediction of the Coding Sequences of Unidentified Human Genes. XI. The Complete Sequences of 100 New cDNA Clones from Brain Which Code for Large Proteins in vitro", <i>DNA Research</i> 5:277-286 (1998)	<input type="checkbox"/>
	BT	Nelbock, P. et al. "A cDNA for a Protein that Interacts with the Human Immunodeficiency Virus Tat Transactivator." <i>Science, Vol. 248, pp. 1650-1653 (1999)</i>	<input type="checkbox"/>
	BU	Oberdoester, J. et al. "The Effects of Ethanol on Neuronal Cell Death: Implication for the Fetal Alcohol Syndrome." <i>FASEB Journal</i> 12(4):A134 (March 17, 1998).	<input type="checkbox"/>
	BV	Peisman, A. et al. "In Vitro Degeneration of Down Syndrome neurons is Prevented by Activity-Dependent Neurotrophic Factor-Derived Peptides." <i>Society for Neuroscience, 28th Annual Meeting, Los Angeles, CA, November 7-12, 1998. Abstracts, Vol. 24, p. 1044 (1998)</i>	<input type="checkbox"/>
	BW	Skolchick, J. and Fritow, J.S. "From Genes to Protein Structure and Function: Novel Applications of Computational Approaches in the Genomic Era." <i>Trends in Biotech.</i> 18(1):34-39 (2000)	<input type="checkbox"/>
	BX	Smith, A.E. "Viral Vectors in Gene Therapy." <i>Ann. Rev. Microbiol.</i> 49:807-838 (1995) [Abstract]	<input type="checkbox"/>

Examiner
SignatureDate
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	10/049,587		
		Filing Date	February 12, 2002		
		First Named Inventor	Brenneman, Douglas		
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		Examiner Name	Standley, Steven H.		
Sheet	6	of	7	Attorney Docket Number	15280W-002100US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BY	Spinney, L. "New Peptides Prevent Brain Damage." <i>Molecular Medicine Today</i> 5(7):282 (July 1999).	<input type="checkbox"/>
	BZ	Spong et al. "Prevention of Fetal Alcohol Syndrome by Novel Peptides." <i>FASEB Journal</i> 13(5):A881 (March 15, 1991)	<input type="checkbox"/>
	CA	Spong et al. "Prevention of Fetal Demise and Growth Restriction in a Mouse Model of Fetal Alcohol Syndrome" <i>The Journal of Pharmacology and Experimental Therapeutics</i> 297:774-779 (2001)	<input type="checkbox"/>
	CB	Voet et al. <u>Biochemistry, 2nd Ed.</u> , p. 67	<input type="checkbox"/>
	CC	Wilkenmeyer et al. "Differential effects of ethanol antagonism and neuroprotection in peptide fragment NAPVSIPQ: prevention of ethanol-induced developmental toxicity" <i>PNAS</i> 100:8543-8548 (2003)	<input type="checkbox"/>

Examiner Signature	Date Considered	
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